REMARKS

Applicant(s) appreciate the Office's review of the present application. In response to the Office Action, the cited references have been reviewed, and the rejections and objections made to the claims by the Examiner have been considered. The claims presently on file in the present application are believed to be patentably distinguishable over the cited references, and therefore allowance of these claims is earnestly solicited.

In order to render the claims more clear and definite, and to emphasize the patentable novelty thereof, claims 1-2, 10, 12, 17-18, 20, and 22 have been amended, and new claims 23-31 have been added. Accordingly, all claims presently on file in the subject application are in condition for immediate allowance, and such action is respectfully requested.

Rejections

Rejection Under 35USC Section 102(b)

Claims 1, 6-7, 10-11, 16-17, and 20-21 have been rejected under 35 USC Section 102 (b), as being anticipated by U.S. patent 5,929,892 to Towner et al. ("Towner"). Applicants respectfully traverse the rejection and request reconsideration based on the amendments to claims 1, 10, 17, and 20 and features in the other claims which are neither disclosed nor suggested in the cited reference.

As to a rejection under 102(b), "[a]nticipation is established only when a single prior art reference discloses expressly or under the principles of inherence, each and every element of the claimed invention." *RCA Corp. v. Applied Digital Data Systems, Inc., (1984, CAFC) 221 U.S.P.Q. 385.* The standard for lack of novelty, that is for "anticipation," is one of strict identity. To anticipate a claim, a patent or a single prior art reference must contain all of the essential elements of the particular claims. *Schroeder v. Owens-Corning Fiberglass Corp., 514 F.2d 901, 185 U.S.P.O. 723 (9th Cir. 1975); and Cool-Fin Elecs. Corp. v. International Elec. Research Corp., 491 F.2d 660, 180 U.S.P.O. 481 (9th Cir. 1974).*

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Independent claim 1 (currently amended), and its dependent claims 6-7, are patentably distinguishable over the cited reference because claim 1 emphasizes the novel features of the present invention which process an image data signal of a particular data format. In this regard, claim 1 specifies an image printing device which includes:

"a processor in said image printing device for receiving and processing said image data signal;

wherein

at a certain stage of the processing said image data signal contains <u>one bit per pixel</u> <u>data specifying location data for each dot</u> of which an image described by said image data signal is constituted <u>but not a size for each said dot</u>, and

said processor <u>estimates a dot density in a defined area around each said dot, and</u> <u>determines a size for each said dot based on the estimated dot density</u> for that said dot."

The novel features of the present invention are not anticipated by the Towner reference in that the essential elements of (a) an image data signal having one bit per pixel data that specifies location but not size for each dot, and (b) a processor that estimates a dot density in a defined area around a dot and determines a size for the dot based on the estimated dot density, are absent from the Towner reference. The Towner reference merely discloses the printing of different size dots (Fig. 14), and teaches that variations in dot diameters may represent gray scale levels (col. 16, lines 4-5). From Fig. 14, the Office concludes that the Towner reference determines a size for each printed dot based on position and density relative to a character edge (Office Action, p.2). Even if this is an accurate interpretation of the Towner reference, which Applicants do not concede, such does not disclose estimating a dot density in a defined area around a dot, and determining a size for the dot based on the estimated dot density, as claimed by Applicants. Such an interpretation could be possible only in hindsight and in light of Applicants' teachings. Nor does Towner disclose an image data signal that uses one bit per pixel to specify the location of each dot, and that does not specify the size of each dot. Therefore, the rejection is improper at least for these reasons and should be withdrawn.

The rejections of independent claim 10 (currently amended) and its dependent claims 11 and 16; independent claim 17 (currently amended); and independent claim 20 (currently

amended) and its dependent claim 21 are respectfully traversed for the reasons as discussed heretofore with respect to independent claim 1.

Claim 10 recites:

"10. A method of printing an image with an image printing device based on a one bit per pixel image data signal that comprises data specifying print location data for each dot that constitutes said image but not a size for each said dot, said method comprising:
  estimating a dot density in a defined area around each said dot, and
  determining a size for each said dot based on the estimated dot density for that said dot."

Claim 17 recites:

"17. An image printing device comprising:
  means for receiving an image data signal in said image printing device; and
  processor means in said image printing device for receiving and processing said image data signal, wherein at a certain stage of the processing said image data signal contains one bit per pixel data specifying location data for each dot of which an image described by said image data signal is constituted but not a size for each said dot,
    said processor means comprising means for estimating a dot density in a defined area around each said dot, and means for determining a size for each said dot based on the estimated dot density for that said dot."

Claim 20 recites:

"20. Computer-readable instructions stored on a media for recording computer-readable instructions, wherein said instructions cause a processing device, that processes a one bit per pixel image data signal comprising data specifying print location data for each dot that constitutes an image but not a size for each said dot, to estimate a dot density in a defined area around each said dot, and determine a size for each said dot based on the estimated dot density for that said dot."

With regard to these claims, the Office cited the same or similar grounds of rejection as for claim 1. Claims 10, 17, and 20 have been amended to contain the limitations of one bit per pixel data specifying dot location but not dot size; the estimation of a dot density in a defined area around each dot; and the determination of a dot size based on the estimated dot density. As has been discussed above with regard to claim 1, Applicants do not believe that these limitations are disclosed by the Towner reference, and therefore the Towner reference does not anticipate Applicants' invention as recited in claims 10, 17, and 20. Finding these limitations in the Towner reference is possible only in hindsight and in light of Applicants'

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teachings. Therefore, the rejection is improper for at least for these reasons and should be withdrawn.

Rejection Under 35USC Section 103

Claims 8-9 have been rejected under 35 USC Section 103 (a), as being unpatentable over U.S. patent 5,929,892 to Towner et al. in view of Applicants' admitted prior art. Applicants respectfully traverse the rejection and request reconsideration. Dependent claims 8-9 are allowable based on the allowability of base claim 1, as has been discussed heretofore. Therefore, the rejection is improper at least for that reason and should be withdrawn.

Formalities

Allowable Subject Matter

Claims 2-5, 12-15, 18-19, and 22 have been objected to as being dependent upon a rejected base claim, and have been indicated as being allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

With this Amendment, Applicants have rewritten allowable claims 2, 12, 18, and 22 in independent form to include all of the limitations of their respective base claims and any intervening claims. As rewritten claims 2, 12, 18, and 22 are now believed to be in allowable form, Applicants respectfully submit that dependent claims 3-5, 13-15, and 19 are allowable in dependent form. Applicants, therefore, respectfully request that the objection to claims 2-5, 12-15, 18-19, and 22 be withdrawn and that these claims be allowed.

Comments on Statement of Reasons for Allowable Subject Matter

Applicants agree with the Office's conclusion regarding patentability, without necessarily agreeing with or acquiescing in the reason(s) set forth in the Office Action. In particular, Applicants wish to emphasize that the patentability of claims stems from the respective combinations of elements defined by the claims, each viewed as a whole, rather than the presence of any particular element(s) in the combinations. Applicants submit that the

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indicated claims are allowable because the prior art fails to anticipate, teach, suggest, or render obvious the invention as claimed, independent of how the invention is paraphrased. Applicants thus rely on the claims, as drafted, rather than any characterization in the Office Action.

Conclusion

Attorney for Applicants has carefully reviewed each one of the cited references, and believes that the claims presently on file in the subject application patentably distinguish thereover, either taken alone or in combination with one another.
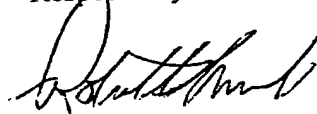
Therefore, all claims presently on file in the subject application are in condition for immediate allowance, and such action is respectfully requested. If it is felt for any reason that direct communication with Applicant's attorney would serve to advance prosecution of this case to finality, the Examiner is invited to call the undersigned Robert C. Sismilich, Esq. at the below-listed telephone number.

HP Docket No. 10001606-1

AUTHORIZATION TO PAY AND PETITION
FOR THE ACCEPTANCE OF ANY NECESSARY FEES

If any charges or fees must be paid in connection with the foregoing communication (including but not limited to the payment of an extension fee or issue fees), or if any overpayment is to be refunded in connection with the above-identified application, any such charges or fees, or any such overpayment, may be respectively paid out of, or into, the Deposit Account No. 08-2025 of Hewlett-Packard Company. If any such payment also requires Petition or Extension Request, please construe this authorization to pay as the necessary Petition or Request which is required to accompany the payment.

Respectfully submitted,

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